



March 9, 2012

MEMBER COMPANIES

Clean Harbors Environmental Services
Dow Chemical U.S.A.
E. I. Du Pont de Nemours
Eastman Chemical Company
INVISTA S.à.r.l.
3M
Ross Incineration Services, Inc.
Veolia ES Technical Services, LLC

EPA Docket Center
EPA West (Air Docket)
U.S. Environmental Protection Agency
Mailcode: 2822T
1200 Pennsylvania Ave, NW
Washington, DC 20460.

Attn: Docket ID No. EPA-HQ-OAR-2011-0435

GENERATOR MEMBERS

Eli Lilly and Company

The Coalition for Responsible Waste Incineration (CRWI) appreciates the opportunity to submit comments on *National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins; Pesticide Active Ingredient Productions; and Polyether Polyols Production; Proposed rule. 77 FR 1,268 (January 9, 2012)*. CRWI is a trade association comprised of 23 members. CRWI is submitting comments on two specific issues (attached).

ASSOCIATE MEMBERS

AECOM
Analytical Perspectives
B3 Systems
Compliance Strategies & Solutions
Cotier Environmental, LLC
Focus Environmental, Inc.
Foster Wheeler USA
Franklin Engineering Group, Inc.
METCO Environmental, Inc.
SAIC
Strata-G, LLC
TestAmerica Laboratories, Inc.
TRC Environmental Corporation
URS Corporation

Thank you for the opportunity to comment on this proposed rule. If you have any questions, please contact me at (703-431-7343 or mel@crwi.org).

INDIVIDUAL MEMBERS

Ronald E. Bastian, PE
Ronald O. Kagel, PhD

ACADEMIC MEMBERS
(Includes faculty from:)

Clarkson University
Colorado School of Mines
Cornell University
Lamar University
Louisiana State University
Mississippi State University
New Jersey Institute of Technology
Rensselaer Polytechnic Institute
University of California – Berkeley
University of Dayton
University of Kentucky
University of Maryland
University of Utah

Sincerely yours,

Melvin E. Keener, Ph.D.
Executive Director

cc: CRWI members
N. Parsons – EPA

44121 Harry Byrd Highway, Suite 225
Ashburn, VA 20147

Phone: 703-431-7343
E-mail: mel@crwi.org
Web Page: http://www.crwi.org

Specific comments

1. EPA should modify the affirmative defense provisions so that it is a “rebuttable presumption.”

As EPA knows, malfunctions will occur. Even the best run facilities will have circumstances where events happen that are out of their control. While CRWI believes that EPA must take into account the conditions that occur during malfunctions and establish limits that consider these circumstances, CRWI also agrees that some form of enforcement discretion is needed for malfunctions. As such, we support EPA maintaining a regulatory provision for malfunctions. However, we are concerned that allowing a facility to interpose an affirmative defense for violations caused by malfunctions implies that the facility is guilty until proven innocent and improperly shifts the burden to the facility. Therefore, CRWI suggests that EPA establish a rebuttable presumption (rather than affirmative defense) where it is presumed that any violation occurring during the malfunction was not the facility’s fault unless the Agency proves certain facts that are enumerated in the rules. This will allow the Agency to challenge the alleged deviation without compromising the legal rights of either party.

2. CRWI suggests that EPA clarify its affirmative defense provisions.

While we prefer EPA use a rebuttable presumption, should the Agency keep the affirmative defense concept, CRWI suggests the following modifications to the language to make it more usable. CRWI understands that most of the provisions EPA has proposed for the affirmative defense comes from earlier guidance memos. While these provisions were in guidance, the Agency did not need to be careful of the wording since they were only guidance and did not have the weight of regulation. However, if the Agency wants to codify this guidance into regulatory language, several changes are needed. For example, EPA should drop the reference to “any” activity. There are also several references to “All” that would make it difficult to satisfy the requirements of an affirmative defense. In addition, the language in the provision is contradictory. In paragraph (a), the phrase “preponderance of evidence” is used while later in that paragraph (iii), the language refers to “any activity” meaning that more than preponderance of evidence is needed. This same trend occurs in paragraphs (5) – “All possible,” (6) “All,” (7) “All of the actions,” and (8) “At all times.” While “all” would include “preponderance,” “preponderance” does not mean all of the time. CRWI suggests that the phrase “preponderance of evidence” is adequate and the references to “all” and “any” in the later paragraphs should be modified.

In 40 CFR 63.2, EPA defines malfunctions as follows.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause,

the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

The language EPA is proposing in §§ 63.1310(k), 63.1360(k), and 63.1420(i) is similar to the definition in § 63.2 with one major exception. In the proposed language, one of the conditions for an affirmative defense is that the excessive emissions were caused by a “sudden, infrequent, and unavoidable failure...” The General Provisions definition of malfunction uses the phrase “not reasonably preventable” instead of the word “unavoidable.” CRWI believes that this inappropriately changes the definition of malfunctions. We see no reason for two different definitions of a malfunction and requests that the Agency revise the language to reflect the General Provisions definition of a malfunction.

To many engineers, the term “root cause analysis” implies a specific formal process. For many malfunctions, the cause is immediately obvious and a formal process for determining the cause is not needed. When a malfunction occurs, the expectation is that the facility will correct the problem as quickly as possible and return to their operating window. A formal root cause analysis is typically limited to very significant events or repeat events. For example, if a thermocouple fails, the most likely cause is a bad thermocouple. The first response is to simply replace the thermocouple. However, if the replacement thermocouple fails within a short period of time, then something else may be causing that event to occur and a more detailed analysis may be needed. It may take several failures before the real cause is identified. Here a formal root cause analysis may be needed, but it certainly is not needed to replace the first failed thermocouple. The proposed language assumes that all malfunctions are equally significant and need an identical degree of investigation. For example, a missing data point due to a malfunction of the data acquisition system is not as significant as a power failure or a catastrophic event such as fire or explosion. CRWI believes that a formal root cause analysis should only be used when other reasonable methods fail to show what caused the malfunction or when the serious nature of an event might make such an analysis necessary. Moreover, other tools may be more appropriate (e.g., failure mode and effect, fault tree, etc.) or more powerful tools may be introduced in the future. The facility is the only one that can and should decide what tool to use to determine the cause of the malfunction.

Part of this problem may be in communications. To some companies and potentially to some local regulators, the term “root cause analysis” implies a specific formal process. There are several techniques that may be called “root cause analysis,” depending on the author and industry. If EPA intends for the facility to investigate and fix the source of the malfunction so that it is less likely to recur, CRWI supports that concept but suggests that the Agency use an alternative term that does not carry a specific meaning. However, if the Agency envisions a formal process for determining the root cause for every malfunction, no matter how simple, CRWI believes this is unnecessary and would result in excess efforts with no environmental gains.

In a recently proposed rule (77 Fed. Reg. 4,522, 4,538, January 30, 2012), EPA proposed dropping the immediate notification process and simply requiring a written report within 45 days of the malfunction. CRWI suggests that the Agency adopt the same change in this regulation. If the Agency keeps the immediate notification requirement, faxing is an obsolete technology. EPA should allow notification by e-mail or other electronic means. As facilities and EPA move toward electronic recordkeeping, it makes no sense to require keeping a “properly signed, contemporaneous operating logs” as a requirement for an affirmative defense. There are a number of electronic methods for maintaining records currently available (and more will likely be available in the future). As such, we suggest modifying this provision. In addition, it is impossible to eliminate the causes for certain malfunctions (e.g., lightning strikes).

Finally, CRWI notes that EPA does not allow facilities to assert an affirmative defense for the exceedance of an emission limit during malfunctions if EPA is seeking to enforce that emission limit through injunctive relief. Apparently the Agency takes that position based on a memorandum, State Implementation Plans: Policy Regarding Excessive Emissions During Malfunctions, Startup, and Shutdown at 2 (Sept. 20, 1999). (SIP SSM Memo). CRWI asserts that this policy is wrong. The type of legal action or relief should have no bearing on the availability of this defense. A malfunction “is a sudden, infrequent, not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner.” 40 CFR § 60.2. It is not affected by the type of enforcement action EPA may eventually bring. Indeed, because a malfunction is not reasonably preventable, enforcement actions, regardless of type, have no deterrent effect on them. Therefore, the type of legal action EPA uses to enforce a violation of its emission limits is simply irrelevant to whether the violation should be excused because of circumstances beyond the facilities control.

Consequently, CRWI believes that not allowing an affirmative defense in an action for injunctive relief is arbitrary and capricious. As the D.C. Circuit Court stated in *Essex Chem. Corp. v. Ruckelshaus*, 486 F.2d 427, 433 (D.C. Cir. 1973) a case reviewing a § 111 rule, the court held that startup, shutdown, or malfunction (“SSM”) provisions are “necessary to preserve the reasonableness of the standards as a whole.” The D.C. Circuit Court of Appeals has also noted that “[a] technology-based standard discards its fundamental premise when it ignores the limits inherent in the technology.” *NRDC v. EPA*, 859 F.2d 156, 208 (D.C. Cir. 1988). Therefore, EPA should not apply a policy drafted to “ensure that SIPs provide for attainment and maintenance of the national ambient air quality standards (“NAAQS”) and protection of prevention of significant deterioration (PSD) increments” and other risk-based programs, SIP SSM Memo at 2, to the CAA § 129 technology-based program.

CRWI suggests that EPA consider making the following modifications to the regulatory language in §§ 63.1310(k), 63.1360(k), and 63.1420(i) to address the concerns mentioned above and to make an affirmative defense a more useful tool (using ~~strikeout~~ to show text deleted and underline to show text added).

§ 63.1310 Applicability and designation of affected sources.

(k) *Affirmative defense for exceedance of emission limit during malfunction.* In response to an action to enforce the standards set forth in this subpart, the owner or operator may assert an affirmative defense to a claim for civil penalties for exceedances of such standards that are caused by malfunction, as defined at § 63.2. Appropriate penalties may be assessed, however, if the owner or operator fails to meet their burden of proving all of the requirements in the affirmative defense. ~~The affirmative defense shall not be available for claims for injunctive relief.~~

- (1) To establish the affirmative defense in any action to enforce such a limit, the owner or operator must timely meet the notification requirements in paragraph (k)(2) of this section, and must prove by a preponderance of evidence that:
- (i) The excess emissions:
 - (A) Were caused by a sudden, infrequent and ~~unavoidable~~ not reasonably preventable failure of air pollution control and monitoring equipment, process equipment or a process to operate in a normal or usual manner; and
 - (B) Could not have been reasonably prevented through careful planning, proper design or better operation and maintenance practices; and
 - (C) Did not stem from any activity or event that could have been reasonably foreseen and avoided or planned for; and
 - (D) Were not part of a recurring pattern indicative of inadequate design, operation or maintenance; and
 - (ii) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded. Off-shift and overtime labor were used to the extent practicable to make these repairs; and
 - (iii) The frequency, amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions; and
 - (iv) If the excess emissions resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury or severe property damage; and
 - (v) ~~All possible~~ Reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment and human health; and
 - (vi) ~~All~~ Emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and
 - (vii) ~~All of the~~ Actions in response to the excess emissions were documented ~~by properly signed, contemporaneous operating logs;~~ and
 - (viii) ~~At all times, t~~ The affected source was operated in a manner consistent with good practices for minimizing emissions; and
 - (ix) A written ~~root cause analysis report~~ report has been prepared, the purpose of which is to determine, ~~correct and eliminate~~ mitigate the primary causes of the malfunction and the excess emissions resulting from the malfunction event at issue. Facility personnel will determine the appropriate type of analysis required (may include but not limited to root cause analysis, failure

mode and effect, fault tree, etc.) to identify the cause of the malfunction.

The analysis report shall also specify, using best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.

- (2) *Notification.* The owner or operator of the affected source experiencing an exceedance of its emission limit(s) during a malfunction shall ~~notify the Administrator by telephone or facsimile (FAX) transmission as soon as possible, but no later than 2 business days after the initial occurrence of the malfunction, if it wishes to avail itself of an affirmative defense to civil penalties for that malfunction.~~ The owner or operator seeking to assert an affirmative defense shall also submit a written report to the Administrator within 45 days of the initial occurrence of the exceedance of the standard in this subpart to demonstrate, with all necessary supporting documentation, that it has met the requirements set forth in paragraph (k)(1) of this section. The owner or operator may seek an extension of this deadline for up to 30 additional days by submitting a written request to the Administrator before the expiration of the 45-day period. Until a request for an extension has been approved by the Administrator, the owner or operator is subject to the requirement to submit such report within 45 days of the initial occurrence of the exceedance.

§ 63.1360 Applicability.

- (k) *Affirmative defense for exceedance of emission limit during malfunction.* In response to an action to enforce the standards set forth in this subpart, the owner or operator may assert an affirmative defense to a claim for civil penalties for exceedances of such standards that are caused by malfunction, as defined at § 63.2. Appropriate penalties may be assessed, however, if the owner or operator fails to meet their burden of proving all of the requirements in the affirmative defense. ~~The affirmative defense shall not be available for claims for injunctive relief.~~

- (1) To establish the affirmative defense in any action to enforce such a limit, the owner or operator must timely meet the notification requirements in paragraph (k)(2) of this section, and must prove by a preponderance of evidence that:
- (i) The excess emissions:
 - (A) Were caused by a sudden, infrequent, and ~~unavoidable~~ not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner, and
 - (B) Could not have been reasonably prevented through careful planning, proper design or better operation and maintenance practices; and
 - (C) Did not stem from any activity or event that could have been reasonably foreseen and avoided, or planned for; and
 - (D) Were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and
 - (ii) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and

- (iii) The frequency, amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions; and
 - (iv) If the excess emissions resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and
 - (v) ~~All possible~~ Reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment and human health; and
 - (vi) ~~All e~~ Emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and
 - (vii) ~~All of the a~~ Actions in response to the excess emissions were documented ~~by properly signed, contemporaneous operating logs;~~ and
 - (viii) ~~At all times, t~~ The affected source was operated in a manner consistent with good practices for minimizing emissions; and
 - (ix) A written ~~root cause analysis report~~ mitigate has been prepared, the purpose of which is to determine, ~~correct,~~ and eliminate mitigate the primary causes of the malfunction and the excess emissions resulting from the malfunction event at issue. Facility personnel will determine the appropriate type of analysis required (may include but not limited to root cause analysis, failure mode and effect, fault tree, etc.) to identify the cause of the malfunction. The ~~analysis report~~ mitigate shall also specify, using best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.
- (2) *Notification.* The owner or operator of the affected source experiencing an exceedance of its emission limit(s) during a malfunction shall ~~notify the Administrator by telephone or facsimile (FAX) transmission as soon as possible, but no later than two business days after the initial occurrence of the malfunction, if it wishes to avail itself of an affirmative defense to civil penalties for that malfunction. The owner or operator seeking to assert an affirmative defense shall also~~ submit a written report to the Administrator within 45 days of the initial occurrence of the exceedance of the standard in this subpart to demonstrate, with all necessary supporting documentation, that it has met the requirements set forth in paragraph (k)(1) of this section. The owner or operator may seek an extension of this deadline for up to 30 additional days by submitting a written request to the Administrator before the expiration of the 45 day period. Until a request for an extension has been approved by the Administrator, the owner or operator is subject to the requirement to submit such report within 45 days of the initial occurrence of the exceedance.

§ 63.1420 Applicability and designation of affected sources.

- (i) *Affirmative defense for exceedance of emission limit during malfunction.* In response to an action to enforce the standards set forth in this subpart, the owner or operator may assert an affirmative defense to a claim for civil penalties for exceedances of

such standards that are caused by malfunction, as defined at § 63.2. Appropriate penalties may be assessed, however, if the owner or operator fails to meet their burden of proving all of the requirements in the affirmative defense. ~~The affirmative defense shall not be available for claims for injunctive relief.~~

- (1) To establish the affirmative defense in any action to enforce such a limit, the owner or operator must timely meet the notification requirements in paragraph (i)(2) of this section, and must prove by a preponderance of evidence that:
- (i) The excess emissions:
 - (A) Were caused by a sudden, infrequent, and ~~unavoidable~~ not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner; and
 - (B) Could not have been reasonably prevented through careful planning, proper design or better operation and maintenance practices; and
 - (C) Did not stem from any activity or event that could have been reasonably foreseen and avoided, or planned for; and
 - (D) Were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and
 - (ii) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and
 - (iii) The frequency, amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions; and
 - (iv) If the excess emissions resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and
 - (v) ~~All possible~~ Reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment and human health; and
 - (vi) ~~All e~~Emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and
 - (vii) ~~All of the a~~Actions in response to the excess emissions were documented ~~by properly signed, contemporaneous operating logs;~~ and
 - (viii) ~~At all times, t~~The affected source was operated in a manner consistent with good practices for minimizing emissions; and
 - (ix) A written ~~root cause analysis report~~ report has been prepared, the purpose of which is to determine, ~~correct,~~ and ~~eliminate~~ mitigate the primary causes of the malfunction and the excess emissions resulting from the malfunction event at issue. Facility personnel will determine the appropriate type of analysis required (may include but not limited to root cause analysis, failure mode and effect, fault tree, etc.) to identify the cause of the malfunction. The ~~analysis report~~ report shall also specify, using best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.

(2) *Notification.* The owner or operator of the affected source experiencing an exceedance of its emission limit(s) during a malfunction shall ~~notify the Administrator by telephone or facsimile (FAX) transmission as soon as possible, but no later than two business days after the initial occurrence of the malfunction, if it wishes to avail itself of an affirmative defense to civil penalties for that malfunction. The owner or operator seeking to assert an affirmative defense shall~~ also submit a written report to the Administrator within 45 days of the initial occurrence of the exceedance of the standard in this subpart to demonstrate, with all necessary supporting documentation, that it has met the requirements set forth in paragraph (i)(1) of this section. The owner or operator may seek an extension of this deadline for up to 30 additional days by submitting a written request to the Administrator before the expiration of the 45 day period. Until a request for an extension has been approved by the Administrator, the owner or operator is subject to the requirement to submit such report within 45 days of the initial occurrence of the exceedance.